

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pig's Eye Rail Yard</u> Applicant/Owner: <u>Marathon Petroleum</u> Investigator: <u>KSW</u>	Date: <u>11/18/2005</u> County: <u>Ramsey</u> State: <u>MN</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Is there a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> (If needed, explain on reverse).	Community ID <u>Wetland A</u> Transect ID: _____ Plot ID: <u>SB-1</u> Circular 39 Type: <u>2/3/1</u> Cowardin: <u>PEMB/C/FOA</u>

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	Other Plant Species	% Cover	Stratum	Indicator
1. <u>Phalaris arundinacea</u>	80	H	FACW+	1. <u>Typha species</u>	10	H	OBL
2. <u>Populus deltoides</u>	5	S/S	FAC+	2. <u>Urtica dioica</u>	5	H	FAC+
3. _____				3. <u>Cirsium arvense</u>	3	H	FACU
4. _____				4. <u>Nepeta cataria</u>	2	H	FAC-
5. _____				5. _____			
6. _____				6. _____			
7. _____				7. _____			
8. _____				8. _____			
9. _____				9. _____			
10. _____				10. _____			

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 100

Remarks:

HYDROLOGY

<input checked="" type="checkbox"/> Recorded data (describe in remarks): <input type="checkbox"/> Stream, lake, or tide gauge <input checked="" type="checkbox"/> Aerial photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water marks <input type="checkbox"/> Drift lines <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Drainage patterns in wetland Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized root channels in upper 12 inches <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of surface water: <u>None</u> (in.) Depth to free water in pit: <u>16</u> (in.) Depth to saturated soil: <u>9</u> (in.)	
Remarks:	

SOILS

Map unit name
(series and phase): _____

Drainage class: _____

Taxonomy (subgroup): _____

Field observations confirm map type?

Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR2/1			sandy muck
6-12		10YR5/3	5YR4/6	10%	sand (sediment) w/gravel
12-31		10YR3/1			mucky clay

Hydric Soil Indicators:

- | | |
|---|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input checked="" type="checkbox"/> Histic epipedon | <input checked="" type="checkbox"/> High organic content in surface layer in sandy soil |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Organic streaking in sandy soils |
| <input type="checkbox"/> Aquic moisture regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or low-chroma colors | <input type="checkbox"/> Other (explain in remarks) |

Remarks:

The 6-12 inch layer indicates soils are disturbed.

WETLAND DETERMINATION

	Yes	No		Yes	No
Hydrophytic vegetation present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is this sampling point within a wetland?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Hydric soils present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Remarks:					

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Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Is there a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> (If needed, explain on reverse).	Community ID <u>Wetland A-upland</u> Transect ID: _____ Plot ID: <u>SB-2</u> Circular 39 Type: _____ Cowardin: _____

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	Other Plant Species	% Cover	Stratum	Indicator
1. <u>Centaurea blebersteinii</u>	40	H	UPL	1. <u>Cirsium arvense</u>	10	H	FACU
2. <u>Phalaris arundinacea</u>	30	H	FACW+	2. _____			
3. <u>Nepeta cataria</u>	20	H	FAC-	3. _____			
4. <u>Populus deltoides</u>	10	S/S	FAC+	4. _____			
5. _____				5. _____			
6. _____				6. _____			
7. _____				7. _____			
8. _____				8. _____			
9. _____				9. _____			
10. _____				10. _____			
Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 50							
Remarks:							

HYDROLOGY

<input checked="" type="checkbox"/> Recorded data (describe in remarks): <div style="margin-left: 20px;"> <input type="checkbox"/> Stream, lake, or tide gauge <input checked="" type="checkbox"/> Aerial photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available </div>	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water marks <input type="checkbox"/> Drift lines <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Drainage patterns in wetland Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized root channels in upper 12 inches <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of surface water: <u>None</u> (in.) Depth to free water in pit: <u>None</u> (in.) Depth to saturated soil: <u>None</u> (in.)	
Remarks:	

SOILS

Map unit name (series and phase): _____		Drainage class: _____	
Taxonomy (subgroup): _____		Field observations confirm map type?	<div style="display: flex; justify-content: space-around;"> Yes <input type="checkbox"/> No <input type="checkbox"/> </div>

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12		10YR4/3	10YR4/4		sandy loam w/gravel
12+					rock refusal

Hydric Soil Indicators:

- | | |
|---|---|
| <input type="checkbox"/> Histosol
<input type="checkbox"/> Histic epipedon
<input type="checkbox"/> Sulfidic odor
<input type="checkbox"/> Aquic moisture regime
<input type="checkbox"/> Reducing conditions
<input type="checkbox"/> Gleyed or low-chroma colors | <input type="checkbox"/> Concretions
<input type="checkbox"/> High organic content in surface layer in sandy soil
<input type="checkbox"/> Organic streaking in sandy soils
<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Other (explain in remarks) |
|---|---|

Remarks:

WETLAND DETERMINATION

<table border="0" style="width: 100%;"> <tr> <td></td> <td style="text-align: center;"><u>Yes</u></td> <td style="text-align: center;"><u>No</u></td> </tr> <tr> <td>Hydrophytic vegetation present?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>Wetland hydrology present?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>Hydric soils present?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>		<u>Yes</u>	<u>No</u>	Hydrophytic vegetation present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wetland hydrology present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Hydric soils present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<table border="0" style="width: 100%;"> <tr> <td></td> <td style="text-align: center;"><u>Yes</u></td> <td style="text-align: center;"><u>No</u></td> </tr> <tr> <td>Is this sampling point within a wetland?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>		<u>Yes</u>	<u>No</u>	Is this sampling point within a wetland?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Is there a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> (If needed, explain on reverse).	Community ID: <u>SB-3</u> Transect ID: _____ Plot ID: <u>SB-3</u> Circular 39 Type: _____ Cowardin: _____

VEGETATION

<u>Dominant Plant Species</u>	<u>% Cover</u>	<u>Stratum</u>	<u>Indicator</u>	
1. <u>Populus deltoides</u>	<u>10</u>	<u>S/S</u>	<u>FAC+</u>	1.
2.				2.
3.				3.
4.				4.
5.				5.
6.				6.
7.				7.
8.				8.
9.				9.
10.				10.

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 100

Remarks:
bare soil recently graded

HYDROLOGY

<input checked="" type="checkbox"/> Recorded data (describe in remarks): <input type="checkbox"/> Stream, lake, or tide gauge <input checked="" type="checkbox"/> Aerial photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water marks <input type="checkbox"/> Drift lines <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Drainage patterns in wetland Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized root channels in upper 12 inches <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of surface water: <u><1</u> (in.) Depth to free water in pit: <u>0</u> (in.) Depth to saturated soil: <u>0</u> (in.)	
Remarks:	

SOILS

Map unit name (series and phase): _____		Drainage class: _____	
Taxonomy (subgroup): _____		Field observations confirm map type? <u>Yes</u> <u>No</u> <input type="checkbox"/> <input type="checkbox"/>	
Profile Description:			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)
0-6		10YR4/2	10YR5/6
6+			
		Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
		10%	sandy clay
			rock refusal
Hydric Soil Indicators:			
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic epipedon <input type="checkbox"/> Sulfidic odor <input type="checkbox"/> Aquic moisture regime <input type="checkbox"/> Reducing conditions <input checked="" type="checkbox"/> Gleyed or low-chroma colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High organic content in surface layer in sandy soil <input type="checkbox"/> Organic streaking in sandy soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (explain in remarks)	
Remarks: 			

WETLAND DETERMINATION

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Hydric soils present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>																	
	<u>Yes</u>	<u>No</u>																	
Is this sampling point within a wetland?	<input type="checkbox"/>	<input type="checkbox"/>																	
Remarks: This is small area (10 ft long x 3 ft wide) was recently graded allowing a pocket of 1/2 inch thickness of ice two feet upslope from Wetland A between the berm and Wetland A. This area had wetland characteristics at the time of the site visit, however, it is likely that water flows downslope into Wetland A during the growing season, rather than ponding for a long duration. An additional site visit during the growing season is recommended to verify whether it is wetland.																			

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Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Is there a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> (If needed, explain on reverse).	Community ID <u>SB-4</u> Transect ID: _____ Plot ID: <u>SB-4</u> Circular 39 Type: _____ Cowardin: _____

VEGETATION

<u>Dominant Plant Species</u>	<u>% Cover</u>	<u>Stratum</u>	<u>Indicator</u>	
1. <u>Populus deltoides</u>	<u>10</u>	<u>S/S</u>	<u>FAC+</u>	1.
2.				2.
3.				3.
4.				4.
5.				5.
6.				6.
7.				7.
8.				8.
9.				9.
10.				10.

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 100

Remarks:
bare soil recently graded

HYDROLOGY

<input checked="" type="checkbox"/> Recorded data (describe in remarks): <div style="margin-left: 20px;"> <input type="checkbox"/> Stream, lake, or tide gauge <input checked="" type="checkbox"/> Aerial photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available </div>	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water marks <input type="checkbox"/> Drift lines <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Drainage patterns in wetland
Field Observations: Depth of surface water: <u><1</u> (in.) Depth to free water in pit: <u>0</u> (in.) Depth to saturated soil: <u>0</u> (in.)	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized root channels in upper 12 inches <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> Other (explain in remarks)
Remarks:	

SOILS

Map unit name (series and phase): _____		Drainage class: _____	
Taxonomy (subgroup): _____		Field observations confirm map type? Yes No <input type="checkbox"/> <input type="checkbox"/>	
Profile Description:			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)
		Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR4/2	10YR5/6
		10%	clay
Hydric Soil Indicators:			
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Histosol <input type="checkbox"/> Histic epipedon <input type="checkbox"/> Sulfidic odor <input type="checkbox"/> Aquic moisture regime <input type="checkbox"/> Reducing conditions <input checked="" type="checkbox"/> Gleyed or low-chroma colors </div> <div style="width: 48%;"> <input type="checkbox"/> Concretions <input type="checkbox"/> High organic content in surface layer in sandy soil <input type="checkbox"/> Organic streaking in sandy soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (explain in remarks) </div> </div>			
Remarks:			

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Is this sampling point within a wetland?	<input type="checkbox"/>	<input type="checkbox"/>																	
Remarks: This is small area (15 ft long x 3 ft wide) was recently graded allowing a pocket of 1/2 inch thickness of ice two feet upslope from Wetland A between the berm and Wetland A. This area had wetland characteristics at the time of the site visit, however, it is likely that water flows downslope into Wetland A during the growing season, rather than ponding for a long duration. An additional site visit during the growing season is recommended to verify whether it is wetland.																			

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Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Is there a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> (If needed, explain on reverse).	Community ID <u>Wetland B</u> Transect ID: _____ Plot ID: <u>SB-5</u> Circular 39 Type: <u>3/2</u> Cowardin: <u>PEMC/B</u>

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	
1. <u>Polygonum sp.</u>	10	H	NI	1.
2.				2.
3.				3.
4.				4.
5.				5.
6.				6.
7.				7.
8.				8.
9.				9.
10.				10.

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 100

Remarks:
bare soil

HYDROLOGY

<input checked="" type="checkbox"/> Recorded data (describe in remarks): <div style="margin-left: 20px;"> <input type="checkbox"/> Stream, lake, or tide gauge <input checked="" type="checkbox"/> Aerial photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available </div>	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water marks <input type="checkbox"/> Drift lines <input checked="" type="checkbox"/> Sediment deposits <input checked="" type="checkbox"/> Drainage patterns in wetland Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized root channels in upper 12 inches <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of surface water: <u>None</u> (in.) Depth to free water in pit: <u>None</u> (in.) Depth to saturated soil: <u>16</u> (in.)	
Remarks: Cracked surface soil from previous inundation. Center of wetland 1/2" thick ice.	

SOILS

Map unit name (series and phase): _____						Drainage class: _____	
Taxonomy (subgroup): _____						Field observations confirm map type? <u>Yes</u> <u>No</u> <input type="checkbox"/> <input type="checkbox"/>	
<u>Profile Description:</u>							
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-16		10YR3/1			sand (sediment) with muck		
16-20		10YR2/1			clayey sand (sediment)		
<u>Hydric Soil Indicators:</u>							
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic epipedon <input type="checkbox"/> Sulfidic odor <input type="checkbox"/> Aquic moisture regime <input type="checkbox"/> Reducing conditions <input checked="" type="checkbox"/> Gleyed or low-chroma colors				<input type="checkbox"/> Concretions <input checked="" type="checkbox"/> High organic content in surface layer in sandy soil <input type="checkbox"/> Organic streaking in sandy soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (explain in remarks)			
Remarks:							

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	<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
Hydrophytic vegetation present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is this sampling point within a wetland?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Hydric soils present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Remarks:					

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Project/Site: <u>Pig's Eye Rail Yard</u> Applicant/Owner: <u>Marathon Petroleum</u> Investigator: <u>KSW</u>	Date: <u>11/18/2005</u> County: <u>Ramsey</u> State: <u>MN</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Is there a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> (If needed, explain on reverse).	Community ID <u>Wetland B-upland</u> Transect ID: _____ Plot ID: <u>SB-6</u> Circular 39 Type: _____ Cowardin: _____

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	
1. <u>Centaurea biebersteinii</u>	20	H	UPL	1.
2. <u>Aster sp.</u>	20	H	NI	2.
3. <u>Solidago species</u>	20	H	NI	3.
4. <u>Taraxacum officinale</u>	20	H	FACU	4.
5.				5.
6.				6.
7.				7.
8.				8.
9.				9.
10.				10.

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 0-50

Remarks:

HYDROLOGY

<input checked="" type="checkbox"/> Recorded data (describe in remarks): <div style="margin-left: 20px;"> <input type="checkbox"/> Stream, lake, or tide gauge <input checked="" type="checkbox"/> Aerial photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available </div>	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water marks <input type="checkbox"/> Drift lines <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Drainage patterns in wetland Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized root channels in upper 12 inches <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of surface water: <u>None</u> (in.) Depth to free water in pit: <u>None</u> (in.) Depth to saturated soil: <u>None</u> (in.)	
Remarks:	

SOILS

Map unit name (series and phase): _____		Drainage class: _____	
Taxonomy (subgroup): _____		Field observations confirm map type? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Profile Description:			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)
0-6		10YR3/1	
6+			
		Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
			sandy loam
			rock/gravel refusal
Hydric Soil Indicators:			
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic epipedon <input type="checkbox"/> Sulfidic odor <input type="checkbox"/> Aquic moisture regime <input type="checkbox"/> Reducing conditions <input type="checkbox"/> Gleyed or low-chroma colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High organic content in surface layer in sandy soil <input type="checkbox"/> Organic streaking in sandy soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (explain in remarks)	
Remarks: 			

WETLAND DETERMINATION

	Yes	No		Yes	No
Hydrophytic vegetation present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is this sampling point within a wetland?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wetland hydrology present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Hydric soils present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Remarks: 					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pig's Eye Rail Yard</u> Applicant/Owner: <u>Marathon Petroleum</u> Investigator: <u>KSW</u>	Date: <u>11/18/2005</u> County: <u>Ramsey</u> State: <u>MN</u>																
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"></td> <td style="width: 10%; text-align: center;"><u>Yes</u></td> <td style="width: 10%; text-align: center;"><u>No</u></td> <td style="width: 40%;"></td> </tr> <tr> <td>Do normal circumstances exist on the site?</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td></td> </tr> <tr> <td>Is the site significantly disturbed (atypical situation)?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>Is there a potential problem area?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td></td> </tr> </table> (If needed, explain on reverse).		<u>Yes</u>	<u>No</u>		Do normal circumstances exist on the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Is there a potential problem area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Community ID <u>Wetland C</u> Transect ID: _____ Plot ID: <u>SB-7</u> Circular 39 Type: <u>2/3</u> Cowardin: <u>PEMB/C</u>
	<u>Yes</u>	<u>No</u>															
Do normal circumstances exist on the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>															
Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>															
Is there a potential problem area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>															

VEGETATION

<u>Dominant Plant Species</u>	<u>% Cover</u>	<u>Stratum</u>	<u>Indicator</u>	<u>Other Plant Species</u>	<u>% Cover</u>	<u>Stratum</u>	<u>Indicator</u>
1. <u>Typha species</u>	<u>45</u>	<u>H</u>	<u>OBL</u>	1. <u>Polygonum sp.</u>	<u>5</u>	<u>H</u>	<u>NI</u>
2. <u>Phalaris arundinacea</u>	<u>50</u>	<u>H</u>	<u>FACW+</u>	2. _____			
3. _____				3. _____			
4. _____				4. _____			
5. _____				5. _____			
6. _____				6. _____			
7. _____				7. _____			
8. _____				8. _____			
9. _____				9. _____			
10. _____				10. _____			

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)	<u>100</u>
--	------------

Remarks:

HYDROLOGY

<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <input checked="" type="checkbox"/> Recorded data (describe in remarks): <div style="margin-left: 20px;"> <input type="checkbox"/> Stream, lake, or tide gauge <input checked="" type="checkbox"/> Aerial photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available </div> </div> <div style="border: 1px solid black; padding: 5px;"> Field Observations: Depth of surface water: <u>None</u> (in.) Depth to free water in pit: <u>30</u> (in.) Depth to saturated soil: <u>None</u> (in.) </div>	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water marks <input checked="" type="checkbox"/> Drift lines <input type="checkbox"/> Sediment deposits <input checked="" type="checkbox"/> Drainage patterns in wetland Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized root channels in upper 12 inches <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> Other (explain in remarks)
Remarks:	

SOILS

Map unit name (series and phase): _____		Drainage class: _____	
Taxonomy (subgroup): _____		Field observations confirm map type? Yes <input type="checkbox"/> No <input type="checkbox"/>	

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16		10YR4/2	10YR5/6		silty sand
16-32		10YR4/1			silty sand

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol
<input type="checkbox"/> Histic epipedon
<input type="checkbox"/> Sulfidic odor
<input type="checkbox"/> Aquic moisture regime
<input type="checkbox"/> Reducing conditions
<input checked="" type="checkbox"/> Gleyed or low-chroma colors | <input type="checkbox"/> Concretions
<input type="checkbox"/> High organic content in surface layer in sandy soil
<input type="checkbox"/> Organic streaking in sandy soils
<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Other (explain in remarks) |
|--|---|

Remarks:

WETLAND DETERMINATION

<table border="0" style="width: 100%;"> <tr> <td></td> <td style="text-align: center;"><u>Yes</u></td> <td style="text-align: center;"><u>No</u></td> </tr> <tr> <td>Hydrophytic vegetation present?</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Wetland hydrology present?</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Hydric soils present?</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		<u>Yes</u>	<u>No</u>	Hydrophytic vegetation present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Wetland hydrology present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hydric soils present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<table border="0" style="width: 100%;"> <tr> <td></td> <td style="text-align: center;"><u>Yes</u></td> <td style="text-align: center;"><u>No</u></td> </tr> <tr> <td>Is this sampling point within a wetland?</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		<u>Yes</u>	<u>No</u>	Is this sampling point within a wetland?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<u>Yes</u>	<u>No</u>																	
Hydrophytic vegetation present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>																	
Wetland hydrology present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>																	
Hydric soils present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>																	
	<u>Yes</u>	<u>No</u>																	
Is this sampling point within a wetland?	<input checked="" type="checkbox"/>	<input type="checkbox"/>																	
Remarks:																			

Project/Site:	Pig's Eye Rail Yard	Date:	11/18/2005
Applicant/Owner:	Marathon Petroleum	County:	Ramsey
Investigator:	KSW	State:	MN
Do normal circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID	Wetland C-upland
Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is there a potential problem area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	SB-8
(If needed, explain on reverse).		Circular 39 Type:	
		Cowardin:	

VEGETATION			
<u>Dominant Plant Species</u>	<u>% Cover</u>	<u>Stratum</u>	<u>Indicator</u>
1. <u>Phalaris arundinacea</u>	<u>50</u>	<u>H</u>	<u>FACW+</u>
2. <u>Cirsium arvense</u>	<u>30</u>	<u>H</u>	<u>FACU</u>
3. <u>Lotus corniculatus</u>	<u>20</u>	<u>H</u>	<u>FAC-</u>
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 33

Remarks:

HYDROLOGY	
<input checked="" type="checkbox"/> Recorded data (describe in remarks): <input type="checkbox"/> Stream, lake, or tide gauge <input checked="" type="checkbox"/> Aerial photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water marks <input type="checkbox"/> Drift lines <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Drainage patterns in wetland Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized root channels in upper 12 inches <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of surface water: <u>None</u> (in.) Depth to free water in pit: <u>None</u> (in.) Depth to saturated soil: <u>None</u> (in.)	
Remarks:	

SOILS

Map unit name (series and phase): _____		Drainage class: _____			
Taxonomy (subgroup): _____		Field observations confirm map type?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-24		10YR7/1	10YR6/6 and 10YR3/1	10% each	clay
24+					rock refusal
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic epipedon <input type="checkbox"/> Sulfidic odor <input type="checkbox"/> Aquic moisture regime <input type="checkbox"/> Reducing conditions <input checked="" type="checkbox"/> Gleyed or low-chroma colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High organic content in surface layer in sandy soil <input type="checkbox"/> Organic streaking in sandy soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (explain in remarks)			
Remarks: 					

WETLAND DETERMINATION

	Yes	No		Yes	No
Hydrophytic vegetation present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is this sampling point within a wetland?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wetland hydrology present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Hydric soils present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Remarks: 					

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pig's Eye Rail Yard</u> Applicant/Owner: <u>Marathon Petroleum</u> Investigator: <u>KSW</u>	Date: <u>11/18/2005</u> County: <u>Ramsey</u> State: <u>MN</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (atypical situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Is there a potential problem area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> (If needed, explain on reverse).	Community ID <u>Wetland D</u> Transect ID: _____ Plot ID: <u>SB-9</u> Circular 39 Type: <u>2</u> Cowardin: <u>PEMB</u>

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	Other Plant Species	% Cover	Stratum	Indicator
1. <u>Phalaris arundinacea</u>	35	H	FACW+	1. <u>Carex hystericina</u>	10	H	OBL
2. <u>Phragmites australis</u>	35	H	FACW+	2. <u>Aster sp.</u>	10	H	NI
3. _____				3. <u>Solidago species</u>	10	H	NI
4. _____				4. _____			
5. _____				5. _____			
6. _____				6. _____			
7. _____				7. _____			
8. _____				8. _____			
9. _____				9. _____			
10. _____				10. _____			

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 100

Remarks: _____

HYDROLOGY

<input checked="" type="checkbox"/> Recorded data (describe in remarks): <input type="checkbox"/> Stream, lake, or tide gauge <input checked="" type="checkbox"/> Aerial photographs <input type="checkbox"/> Other <input type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water marks <input type="checkbox"/> Drift lines <input type="checkbox"/> Sediment deposits <input checked="" type="checkbox"/> Drainage patterns in wetland
Field Observations: Depth of surface water: <u>None</u> (in.) Depth to free water in pit: <u>None</u> (in.) Depth to saturated soil: <u>None</u> (in.)	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized root channels in upper 12 inches <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> Other (explain in remarks)
Remarks:	

SOILS

Map unit name (series and phase): _____		Drainage class: _____			
Taxonomy (subgroup): _____		Field observations confirm map type? Yes <input type="checkbox"/> No <input type="checkbox"/>			
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12		10YR3/2	10YR3/1 and 10YR4/6	20% and 10%	sandy muck
12+					refusal
Hydric Soil Indicators:					
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input checked="" type="checkbox"/> Histosol <input type="checkbox"/> Histic epipedon <input type="checkbox"/> Sulfidic odor <input type="checkbox"/> Aquic moisture regime <input type="checkbox"/> Reducing conditions <input checked="" type="checkbox"/> Gleyed or low-chroma colors </div> <div style="width: 50%;"> <input type="checkbox"/> Concretions <input type="checkbox"/> High organic content in surface layer in sandy soil <input type="checkbox"/> Organic streaking in sandy soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (explain in remarks) </div> </div>					
Remarks:					

WETLAND DETERMINATION

	Yes	No		Yes	No
Hydrophytic vegetation present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is this sampling point within a wetland?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Hydric soils present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Remarks:					